



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,560	09/15/2003	Naoyuki Hatano	9281-4635	9744

7590 01/05/2007
Gustavo Siller, Jr.
BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, IL 60610

EXAMINER

CHEN, ALAN S

ART UNIT	PAPER NUMBER
----------	--------------

2182

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/662,560	Applicant(s) HATANO, NAOYUKI	
	Examiner Alan S. Chen	Art Unit 2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3 and 4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3 and 4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 11/7/2006 have been fully considered but they are not persuasive. Applicant argues the prior art reference to Lin does not teach or suggest the control unit transfers data stored in the second buffer to the first buffer. Applicant cites paragraph 7 of Lin as evidence, paragraph 7 stating "...The FIFOs 14A, 14B, 18A, 18B are connected to a control circuit 20 and relay digital information back and forth between the control circuit 20 and the USB ports 12 and 16...".

Examiner strongly disagrees. Paragraph 7 is in fact evidence that the FIFOs are designed to store information sent from one host to another host, e.g., digital information transferred from Host PC to the other Host PC, and thus, from one FIFO to the other FIFO. ***There is only a single path*** in Lin, when the USB device, element 10, is functioning as a host-to-host link communication mode. This path forces digital data to go from one FIFO to other FIFO as well as the control circuit. Any information sent from one host PC (e.g., *the host connected to the first port, element 12*) must traverse through one FIFO (*Fig. 1, element 14A*), the control circuit (*Fig. 1, element 20*) and then the other FIFO (*Fig. 1, element 18A*) and finally to the second host (*Fig. 1, element 16, through the second port*). The remaining FIFOs are related to Function B, which is when only one host is attached to the USB device, element 10. In Fig. 2, Lin discloses a simpler implementation, but the operation is still the same as in Fig. 1. When in operation mode A, two hosts are connected and digital data from one host must traverse through the first FIFO (e.g., *element 34*), into the control circuit, and subsequently into the second FIFO (e.g., *element 38*) and finally to the second host (*Fig. 2, element 100b*). ***There is no other path for the***

Art Unit: 2182

digital information to traverse. Fig. 2, element 40 is the detection line that dictates what operation mode the control circuit (*Fig. 2, element 42*) is operating in. When it is detected that both hosts are connected, the control circuit operates in mode A, which causes data to flow from one FIFO to the other.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1,3 and 4 are rejected under 35 U.S.C. 102(e) as being anticipated by US Pat.

Pub. No. 2003/0212841 to Lin

4. Per claim 1, Lin discloses a communication control device (*Fig. 2, element 30 is a multifunction USB device that facilitates transfer of data between two other devices*) that controls data communication between a host computer (*Fig. 2, element 100a*) and a peripheral device (*Fig. 2, element 100b; Paragraph 20, lines 20-29 disclose element 100b can be a flash memory stick or another host for host-to-host communications. Both are peripherals with respect to host computer, element 100a*), comprising: first buffer memory that stores data to be sent to the host computer (*Fig. 2, element 34; Paragraph 20, lines 11-14 disclose ports are connected through FIFOs, elements 34 and 38*); second buffer memory that stores data outputted from the peripheral device (*Fig. 2, element 38; Paragraph 20, lines 11-14*), and a control unit that transfers the data stored in the second buffer memory to the first buffer memory (*Fig. 2,*

element 42, control circuit governs the communication between FIFOs based on operational mode), when receiving a transmission approval command of approving data transmission from the peripheral device to the host computer (Fig. 2, element 40, detection circuit sends approval to control circuit when devices are connected to port elements 32 and 36; Paragraph 20, "... The detection circuit 40 senses how many ports are connected to powered USB components, i.e., USB hosts such as personal computers...and communicating this information to the control circuit 42"), wherein the first buffer memory and the second buffer memory are FIFO buffers (clearly labeled in Fig. 2, elements 34 and 38).

5. Per claim 3, Lin discloses claim 1, wherein the second buffer memory is a multi-stage FIFO buffer (*FIFOS have multiple data elements, queuing at least two data elements, and therefore are by definition, multi-staged*).

6. Per claim 4, Lin discloses claim 1, wherein the data communication is performed using a USB line (*Fig. 3 shows communications over USB cable/specification*).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 2182


however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan S. Chen whose telephone number is 571-272-4143. The examiner can normally be reached on M-F 8:30am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim N. Huynh can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ASC
12/27/2006


KIM HUYNH
SUPERVISORY PATENT EXAMINER
12/28/06